

SEQUENCE LISTING

<110> Chau, Raymond M.W.

<120> Isolation and Use of Motoneuronotropic Factors

<130> 12592-4

<140> None

<141> 2001-11-20

<150> US 09/633,447

<151> 2000-08-07

<150> US 08/9928862

<151> 1997-09-12

<150> US 08/751225

<151> 1996-11-15

<150> US 60/026792

<151> 1996-09-27

<160> 5

<170> PatentIn version 3.0

<210> 1

<211> 1443

<212> DNA

<213> Homo Sapiens

<400> 1

cgggcttatt attccactga tgagaacctg atcctttccc cactcctggg taacgtctgc
60

ttctccagct cccagtacag catctgcttc acgctgggct cctttgcaa gatctatgcc
120

gacaccttg gtgacattaa ttaccaagaa ttgctaaaa gactctgggg tgacatctac
180

ttcaacccta agacgcgaaa gttcaceaaa aaggecccaa ctagcagetc ccagagaagt
240

ttcgtggagt ttatcttgga gcctctttat aagatcctcg cccaggttgt aggtgacgtg
300

gacaccagcc tcccacggac cctagacgag cttggcatcc acctgacgaa ggaggagctg
360

aagctgaaca tccgcccctt gctcaggctg gtctgcaaaa agttcttttg cgagttcaca
420

ggctttgtgg acatgtgtgt gcagcatatc ccttctccaa aggtggggcg caagcccaag
480

attgagcaca cctacaccgg tgggtgtggac tccgacctcg gcgaagctat gagtgactgt
540

gaccctgatg gcccctgat gtgccacact actaagatgt tcagcacaca tgatggagtc
600

cagtttcacc cctttggccg ggtgctgagt ggcaccattc atgctgggca gcctgtgaag
660

gttctggggg agaactacac cctggaggat gaggaagact cccaatttg ccccgtaggc
720

cgcccttgga tctctgtggc cagctaccac atcgaggatga accgtgttcc tgctggcaac
780

tgggttctga ttgaagggtg tgatcaacca attgtgaaga cagcaaccat aaccgaaccc
840

cgaggcaatg aggaggctca gattttccga cccttgaagt tcaataccac atctgttacc
900

aagattgctg tggagccagt caaccctca gagctgcca agatgcttga tggcctgcgc
960

aagggtcaaca agagctatcc atccctcacc accaagggtg aggagtctgg cgagcatgtg
1020

atcctgggca ctggggagct ctacctggac tgtgtgatgc atgatttgcg gaagatgtac
1080

tcagagatag acatcaagggt ggctgacca gttgtcacgt tttgtgagac ggtcgtggaa
1140

acatcctccc tcaagtgctt tgctgaaacg cctaataaga agaacaagat caccatgatt
1200

gctgagcctc ttgagaaggg cctggcagag gacatagaga atgaggtggg ccagattacg
1260

tggaacagga agaagctggg agagttcttc cagaccaagt acgattggga tctgctggct
1320

gcccgttcca tctgggcttt tggccctgat gcgactggcc ccaacattct ggtggatgat
1380

actctgccct ctgaggtgga caaggctctt cttgggttcag tgaaggacag catcggttcaa
1440

ggt
1443

<210> 2

<211> 927

<212> DNA

<213> Homo Sapiens

<400> 2

ttggggacat tttgggggtga cacactgaac tgctggatgc tatcagcatt tagtaggtat
60

gctcgatgtc ttgcagaagg acatgatggg cctacacagt aaggaatgga ttacctacaa
120

tattaatagc agcctcccat acacactttt gacacccttc cctaaaggat taatatgtc
180

caaccttcct gtccccacag ttcagtgggt ctccctaccc tcaccatgat cggatgaaaa
240

aaaataaggt ttcacagctt aagagtgaaa ttctggaatc caactacaag ctcataactg
300

tagcatggaa cctggtagta gcataataaa taaattttta gtaagaggct taagaaattt
360

tagcaaaaaa agcactccct ttcttctctc ctacatatct catatgtttt tcaacacaaa
420

aaattctgtg attttagaga aacttcttac agtactttta agttcaaaac cagatgctca
480

ttacagttct tttaaacc accaactagtca tctcaaaaat atggctaact ctctggacta
540

aattccatag gaaaaattat taatttcaaa atgcctaatt tttgatcaat gctgaagagc
600

caagcaatca tgtcctgctt ctcaactcagg gcagagttct caggtcagaa gctccggagt
660

ctgtcagaga ttaaaatata atctcaacaa ttcacaagct acttctaagt gttaccctaa
720

attagtcact aatcgtttct cccccaactc tatttcacaa attaaagttt acagaattga
780

caaaaaccaa accaatgaaa caacccaggc tatttgcagg ggggggggaaa gagatacccc
840

aaaagtcaac cctatttaca cgtagttaaa agagtgatcc aacagatatt accctccata
900

aagtacctaa aggcaggagc cggaatt
927

<210> 3

<211> 481

<212> PRT

<213> Homo Sapiens

<400> 3

Arg Ala Tyr Tyr Ser Thr Asp Glu Asn Leu Ile Leu Ser Pro Leu Leu
1 5 10 15

Gly Asn Val Cys Phe Ser Ser Ser Gln Tyr Ser Ile Cys Phe Thr Leu
20 25 30

Gly Ser Phe Ala Lys Ile Tyr Ala Asp Thr Phe Gly Asp Ile Asn Tyr
35 40 45

Gln Glu Phe Ala Lys Arg Leu Trp Gly Asp Ile Tyr Phe Asn Pro Lys
50 55 60

Thr Arg Lys Phe Thr Lys Lys Ala Pro Thr Ser Ser Ser Gln Arg Ser
65 70 75 80

Phe Val Glu Phe Ile Leu Glu Pro Leu Tyr Lys Ile Leu Ala Gln Val
85 90 95

Val Gly Asp Val Asp Thr Ser Leu Pro Arg Thr Leu Asp Glu Leu Gly
100 105 110

Ile	His	Leu	Thr	Lys	Glu	Glu	Leu	Lys	Leu	Asn	Ile	Arg	Pro	Leu	Leu		
		115					120					125					
Arg	Leu	Val	Cys	Lys	Lys	Phe	Phe	Gly	Glu	Phe	Thr	Gly	Phe	Val	Asp		
	130					135					140						
Met	Cys	Val	Gln	His	Ile	Pro	Ser	Pro	Lys	Val	Gly	Ala	Lys	Pro	Lys		
145					150					155					160		
Ile	Glu	His	Thr	Tyr	Thr	Gly	Gly	Val	Asp	Ser	Asp	Leu	Gly	Glu	Ala		
				165					170					175			
Met	Ser	Asp	Cys	Asp	Pro	Asp	Gly	Pro	Leu	Met	Cys	His	Thr	Thr	Lys		
			180					185					190				
Met	Phe	Ser	Thr	His	Asp	Gly	Val	Gln	Phe	His	Pro	Phe	Gly	Arg	Val		
		195					200					205					
Leu	Ser	Gly	Thr	Ile	His	Ala	Gly	Gln	Pro	Val	Lys	Val	Leu	Gly	Glu		
	210					215					220						
Asn	Tyr	Thr	Leu	Glu	Asp	Glu	Glu	Asp	Ser	Gln	Ile	Cys	Thr	Val	Gly		
225					230					235					240		
Arg	Leu	Trp	Ile	Ser	Val	Ala	Arg	Tyr	His	Ile	Glu	Val	Asn	Arg	Val		
				245					250					255			
Pro	Ala	Gly	Asn	Trp	Val	Leu	Ile	Glu	Gly	Val	Asp	Gln	Pro	Ile	Val		
			260					265					270				
Lys	Thr	Ala	Thr	Ile	Thr	Glu	Pro	Arg	Gly	Asn	Glu	Glu	Ala	Gln	Ile		
		275					280					285					
Phe	Arg	Pro	Leu	Lys	Phe	Asn	Thr	Thr	Ser	Val	Ile	Lys	Ile	Ala	Val		
	290					295					300						
Glu	Pro	Val	Asn	Pro	Ser	Glu	Leu	Pro	Lys	Met	Leu	Asp	Gly	Leu	Arg		
305					310					315					320		
Lys	Val	Asn	Lys	Ser	Tyr	Pro	Ser	Leu	Thr	Thr	Lys	Val	Glu	Glu	Ser		
				325					330					335			
Gly	Glu	His	Val	Ile	Leu	Gly	Thr	Gly	Glu	Leu	Tyr	Leu	Asp	Cys	Val		
			340					345					350				
Met	His	Asp	Leu	Arg	Lys	Met	Tyr	Ser	Glu	Ile	Asp	Ile	Lys	Val	Ala		
		355					360					365					

Asp Pro Val Val Thr Phe Cys Glu Thr Val Val Glu Thr Ser Ser Leu
 370 375 380

Lys Cys Phe Ala Glu Thr Pro Asn Lys Lys Asn Lys Ile Thr Met Ile
 385 390 395 400

Ala Glu Pro Leu Glu Lys Gly Leu Ala Glu Asp Ile Glu Asn Glu Val
 405 410 415

Val Gln Ile Thr Trp Asn Arg Lys Lys Leu Gly Glu Phe Phe Gln Thr
 420 425 430

Lys Tyr Asp Trp Asp Leu Leu Ala Ala Arg Ser Ile Trp Ala Phe Gly
 435 440 445

Pro Asp Ala Thr Gly Pro Asn Ile Leu Val Asp Asp Thr Leu Pro Ser
 450 455 460

Glu Val Asp Lys Ala Leu Leu Gly Ser Val Lys Asp Ser Ile Val Gln
 465 470 475 480

Gly

<210> 4

<211> 33

<212> PRT

<213> Homo Sapiens

<400> 4

Leu Gly Thr Phe Trp Gly Asp Thr Leu Asn Cys Trp Met Leu Ser Ala
 1 5 10 15

Phe Ser Arg Tyr Ala Arg Cys Leu Ala Glu Gly His Asp Gly Pro Thr
 20 25 30

Gln

<210> 5

<211> 99

<212> DNA

<213> Homo Sapiens

<400> 5

ttggggacat tttggggtga cacactgaac tgctggatgc tatcagcatt tagtaggtat
 60

gctcgatgtc ttgcagaagg acatgatggt cctacacag
99

SEQUENCE LISTING

<110> Chau, Raymond M.W.

<120> Isolation and Use of Motoneuronotropic Factors

<130> 12592-4

<140> None

<141> 2001-11-20

<150> US 09/633,447

<151> 2000-08-07

<150> US 08/9928862

<151> 1997-09-12

<150> US 08/751225

<151> 1996-11-15

<150> US 60/026792

<151> 1996-09-27

<160> 5

<170> PatentIn version 3.0

<210> 1

<211> 1443

<212> DNA

<213> Homo Sapiens

<400> 1

cgggcttatt attccactga tgagaacctg atcctttccc cactcctggg taacgtctgc
60

ttctccagct ccagtacag catctgcttc acgctgggct cctttgcaa gatctatgcc
120

gacacctttg gtgacattaa ttaccaagaa ttgctaaaa gactctgggg tgacatctac
180

ttcaacccta agacgcgaaa gttcaccaaa aaggccccaa ctagcagetc ccagagaagt
240

ttcgtggagt ttatcttgga gcctctttat aagatcctcg cccaggttgt aggtgacgtg
300

gacaccagcc tcccacggac cctagacgag cttggcatcc acctgacgaa ggaggagctg
360

aagctgaaca tccgcccctt gctcaggctg gtctgcaaaa agttcttttg cgagttcaca
420

ggctttgtgg acatgtgtgt gcagcatatc ctttctccaa aggtgggctg caagcccaag
480

attgagcaca cctacaccgg tgggtgtggac tccgacctcg gcgaagctat gagtgactgt
540

gacctgatg gcccctgat gtgccacact actaagatgt tcagcacaca tgatggagtc
600

cagtttcacc cttttggccg ggtgctgagt ggcaccattc atgctgggca gcctgtgaag
660

gttctggggg agaactacac cctggaggat gaggaagact cccaatttg ccccgtaggc
720

cgcctttgga tctctgtggc cagctaccac atcgaggatga accgtgttcc tgctggcaac
780

tgggttctga ttgaagggtg tgatcaacca attgtgaaga cagcaaccat aaccgaaccc
840

cgaggcaatg aggaggctca gatattccga cccttgaagt tcaataccac atctgttacc
900

aagattgctg tggagccagt caaccctca gagctgcca agatgcttga tggcctgcgc
960

aaggtaaca agagctatcc atccctcacc accaagggtg aggagtctgg cgagcatgtg
1020

atcctgggca ctggggagct ctacctggac tgtgtgatgc atgatttgcg gaagatgtac
1080

tcagagatag acatcaagggt ggctgacca gttgtcacgt tttgtgagac ggtcgtggaa
1140

acatcctccc tcaagtgctt tgctgaaacg cctaataaga agaacaagat caccatgatt
1200

gctgagcctc ttgagaaggg cctggcagag gacatagaga atgaggtggg ccagattacg
1260

tggaacagga agaagctggg agagttcttc cagaccaagt acgattggga tctgctggct
1320

gcccgttcca tctgggcttt tggccctgat gcgactggcc ccaacattct ggtggatgat
1380

actctgccct ctgaggtgga caaggctctt cttggttcag tgaaggacag catcggtcaa
1440

ggt
1443

<210> 2

<211> 927

<212> DNA

<213> Homo Sapiens

<400> 2

ttggggacat tttgggggtga cacactgaac tgctggatgc tatcagcatt tagtaggtat
60

gctcgatgtc ttgcagaagg acatgatggc cctacacagt aaggaatgga ttacctacaa
120

tattaatagc agcctcccat acacactttt gacacccttc cctaaaggat taatatgctc
180

caaccttctt gtccccacag ttcagtggct ctccctaccc tcacctgat cggatgaaaa
240

aaaataaggt ttcacagctt aagagtgaat ttctggaatc caactacaag ctcataactg
300

tagcatggaa cctggtagta gcataataaa taaattttta gtaagaggct taagaaattt
360

tagcaaaaaa agcactccct ttcttctctc ctacatatct catatgtttt tcaacacaaa
420

aaattctgtg atttttagaga aacttcttac agtactttta agttcaaaac cagatgctca
480

ttacagttct tttaaacacc aaactagtca tctcaaaaat atggctaact ctctggacta
540

aattccatag gaaaaattat taatttcaaa atgcctaatt tttgatcaat gctgaagagc
600

caagcaatca tgtcctgctt ctactcagg gcagagttct caggtcagaa gctccggagt
660

ctgtcagaga ttaaaatata atctcaacaa ttcacaagct acttctaagt gttaccctaa
720

attagtcact aatcgtttct cccccaactc tatttcacaa attaaagttt acagaattga
780

caaaaaccaa accaatgaaa caaccaggc tatttgcagg gggggggaaa gagatacccc
840

aaaagtcaac cctatttaca cgtagttaaa agagtgatcc aacagatatt accctccata
900

aagtacctaa aggcaggagc cggaatt
927

<210> 3

<211> 481

<212> PRT

<213> Homo Sapiens

<400> 3

Arg Ala Tyr Tyr Ser Thr Asp Glu Asn Leu Ile Leu Ser Pro Leu Leu
1 5 10 15

Gly Asn Val Cys Phe Ser Ser Ser Gln Tyr Ser Ile Cys Phe Thr Leu
20 25 30

Gly Ser Phe Ala Lys Ile Tyr Ala Asp Thr Phe Gly Asp Ile Asn Tyr
35 40 45

Gln Glu Phe Ala Lys Arg Leu Trp Gly Asp Ile Tyr Phe Asn Pro Lys
50 55 60

Thr Arg Lys Phe Thr Lys Lys Ala Pro Thr Ser Ser Ser Gln Arg Ser
65 70 75 80

Phe Val Glu Phe Ile Leu Glu Pro Leu Tyr Lys Ile Leu Ala Gln Val
85 90 95

Val Gly Asp Val Asp Thr Ser Leu Pro Arg Thr Leu Asp Glu Leu Gly
100 105 110

Ile	His	Leu	Thr	Lys	Glu	Glu	Leu	Lys	Leu	Asn	Ile	Arg	Pro	Leu	Leu	115	120	125
Arg	Leu	Val	Cys	Lys	Lys	Phe	Phe	Gly	Glu	Phe	Thr	Gly	Phe	Val	Asp	130	135	140
Met	Cys	Val	Gln	His	Ile	Pro	Ser	Pro	Lys	Val	Gly	Ala	Lys	Pro	Lys	145	150	155
Ile	Glu	His	Thr	Tyr	Thr	Gly	Gly	Val	Asp	Ser	Asp	Leu	Gly	Glu	Ala	165	170	175
Met	Ser	Asp	Cys	Asp	Pro	Asp	Gly	Pro	Leu	Met	Cys	His	Thr	Thr	Lys	180	185	190
Met	Phe	Ser	Thr	His	Asp	Gly	Val	Gln	Phe	His	Pro	Phe	Gly	Arg	Val	195	200	205
Leu	Ser	Gly	Thr	Ile	His	Ala	Gly	Gln	Pro	Val	Lys	Val	Leu	Gly	Glu	210	215	220
Asn	Tyr	Thr	Leu	Glu	Asp	Glu	Glu	Asp	Ser	Gln	Ile	Cys	Thr	Val	Gly	225	230	235
Arg	Leu	Trp	Ile	Ser	Val	Ala	Arg	Tyr	His	Ile	Glu	Val	Asn	Arg	Val	245	250	255
Pro	Ala	Gly	Asn	Trp	Val	Leu	Ile	Glu	Gly	Val	Asp	Gln	Pro	Ile	Val	260	265	270
Lys	Thr	Ala	Thr	Ile	Thr	Glu	Pro	Arg	Gly	Asn	Glu	Glu	Ala	Gln	Ile	275	280	285
Phe	Arg	Pro	Leu	Lys	Phe	Asn	Thr	Thr	Ser	Val	Ile	Lys	Ile	Ala	Val	290	295	300
Glu	Pro	Val	Asn	Pro	Ser	Glu	Leu	Pro	Lys	Met	Leu	Asp	Gly	Leu	Arg	305	310	315
Lys	Val	Asn	Lys	Ser	Tyr	Pro	Ser	Leu	Thr	Thr	Lys	Val	Glu	Glu	Ser	325	330	335
Gly	Glu	His	Val	Ile	Leu	Gly	Thr	Gly	Glu	Leu	Tyr	Leu	Asp	Cys	Val	340	345	350
Met	His	Asp	Leu	Arg	Lys	Met	Tyr	Ser	Glu	Ile	Asp	Ile	Lys	Val	Ala	355	360	365

Asp Pro Val Val Thr Phe Cys Glu Thr Val Val Glu Thr Ser Ser Leu
370 375 380

Lys Cys Phe Ala Glu Thr Pro Asn Lys Lys Asn Lys Ile Thr Met Ile
385 390 395 400

Ala Glu Pro Leu Glu Lys Gly Leu Ala Glu Asp Ile Glu Asn Glu Val
405 410 415

Val Gln Ile Thr Trp Asn Arg Lys Lys Leu Gly Glu Phe Phe Gln Thr
420 425 430

Lys Tyr Asp Trp Asp Leu Leu Ala Ala Arg Ser Ile Trp Ala Phe Gly
435 440 445

Pro Asp Ala Thr Gly Pro Asn Ile Leu Val Asp Asp Thr Leu Pro Ser
450 455 460

Glu Val Asp Lys Ala Leu Leu Gly Ser Val Lys Asp Ser Ile Val Gln
465 470 475 480

Gly

<210> 4

<211> 33

<212> PRT

<213> Homo Sapiens

<400> 4

Leu Gly Thr Phe Trp Gly Asp Thr Leu Asn Cys Trp Met Leu Ser Ala
1 5 10 15

Phe Ser Arg Tyr Ala Arg Cys Leu Ala Glu Gly His Asp Gly Pro Thr
20 25 30

Gln

<210> 5

<211> 99

<212> DNA

<213> Homo Sapiens

<400> 5

ttggggacat tttgggggtga cacactgaac tgctgggatgc tatcagcatt tagtaggtat
60

gctcgatgtc ttgcagaagg acatgatggc cctacacag

99